

Applicants: Philip O. Livingston and Friedhelm Helling
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Exhibit A
Amended Claims

--78. (Amended) A composition which comprises:

a) a conjugate of i) a GM2 or GD2 ganglioside derivative which comprises an unaltered oligosaccharide part and an altered ceramide portion comprising a sphingosine base, to ii) Keyhole Limpet Hemocyanin, comprising an ϵ -aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in a subject,

wherein in the conjugate the ganglioside derivative is [conjugated] covalently bound to Keyhole Limpet Hemocyanin through a [ceramide-derived carbon] C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the ϵ -aminolysyl group of Keyhole Limpet Hemocyanin, wherein the C-4 carbon is present in a CH₂ group.--

--92. (Amended) A method of stimulating or enhancing antibody production in a subject which comprises

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administering to the subject an effective amount of
a composition which comprises:

a) a conjugate of i) a GM2 or GD2 ganglioside derivative which comprises an unaltered oligosaccharide part and an altered ceramide portion comprising a sphingosine base, to ii) Keyhole Limpet Hemocyanin, comprising an ϵ -aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in the subject,

wherein in the conjugate the ganglioside derivative is [conjugated] covalently bound to Keyhole Limpet Hemocyanin through a [ceramide-derived carbon] C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the ϵ -aminolysyl group of Keyhole Limpet Hemocyanin, wherein the C-4 carbon is present in a CH₂ group, so as to thereby stimulate or enhance antibody production in the subject.--

--94. (Three Times Amended) A method of treating a cancer in a subject which comprises administering to the

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subject an effective cancer treating amount of a composition which comprises:

a) a conjugate of i) a GM2 or GD2 ganglioside derivative which comprises an unaltered oligosaccharide part and an altered ceramide portion comprising a sphingosine base, to ii) Keyhole Limpet Hemocyanin, comprising an ϵ -aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in the subject,

wherein in the conjugate the ganglioside derivative is [conjugated] covalently bound to Keyhole Limpet Hemocyanin through a [ceramide-derived carbon] C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the ϵ -aminolysyl group of Keyhole Limpet Hemocyanin, wherein the C-4 carbon is present in a CH_2 group, so as to thereby treat the cancer in the subject.--